

CLAIMS:

1. Method for fixing toner images applied to a substrate on a first-side and a second-side of a substrate comprising the steps of:
5 the toner images applied on the first-side and second-side are fixed together by microwaves, being heated to a final fixation temperature, and the toner image applied on the first-side is prefixed by microwaves before a toner image is applied on the second-side, with the toner image of the first-side being heated to a prefixing temperature that is lower than the final fixing temperature.
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2. Method according to Claim 1, wherein the prefixing temperature is chosen so that adhesion of the toner to the first-side on the substrate, without consideration of image quality, sufficient for subsequent second-side printing is achieved.
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3. Method according to Claim 1, wherein the ratio of the modulus of elasticity G' at the reference temperature, calculated from the initial temperature at the beginning of the glass transition point of the toner plus 50°C to the value of the modulus of elasticity at the initial temperature is $< 10^{-5}$, preferably
20 $< 10^{-7}$.
4. Method according Claim 3, wherein the transition of the toner from the solid to the liquid state occurs in a temperature range of about 50°C or smaller.
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5. Method according to Claim 4, wherein the mentioned temperature range of the state change of the toner extends above 60°C, preferably in the range of about 75°C to about 125°C.
- 30 6. Method according to Claim 5, wherein the prefixing temperature is chosen in a temperature range of about 90°C to 100°C.

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7. Method according to Claim 6, wherein the final fixing temperature is chosen to be above about 100°C.